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# Identification of the Physiological Dimension and Self-Concept among Husbands of Iranian Women with Mastectomy; a Directed Content Analysis

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**Background:** Breast cancer, as the most prevalent cancer among females, exerts physical and mental impacts on both patients and their husbands. The present study aimed at investigating various dimensions of self-concept among husbands of Iranian women with mastectomy.

**Methods:** This study was conducted on 23 patients with mastectomy and their husbands and therapists using directed content analysis according to Callista-Roy adaptation model. The participants were interviewed regarding how they coped with cancer through video call, and 'physical dimensions' and 'self-concept' subcategories were identified. Content analysis was done using the Elo and Kyngus approach.

**Results:** The results revealed two main themes, namely 'exposure to physical challenges' and 'weakened to strengthened self-concept'.

**Discussion and Conclusion:** This research showed the existence of many physical and mental problems of women undergoing mastectomy, and it is recommended to do interventions to reduce these complications.

**Keywords:** Self-concept, Breast neoplasm, Breast Cancer, Mastectomy, Adaptation, Physiological.

## Introduction

Breast cancer (BC) is the second most known cancer in the world<sup>(1)</sup> and the second cause of death related to cancer in Iran<sup>(2)</sup>. Mastectomy is the most performed surgical operation for treatment of BC<sup>(3)</sup> which may reduce women's sexual attractiveness and due to the fact that breasts are responsible for secretion of oxytocin, orgasm, and uterine contractions during sexual intercourse<sup>(4)</sup>, eventually resulting in sexual dysfunction and changes in their mental imagery<sup>(5)</sup>. Such changes in women's behaviors, in turn, affect their husbands' sexual function<sup>(6)</sup>. Changes in husbands' mental status are sometimes so strong that they lead to hospitalization and depression which generally affects their quality of life<sup>(7)</sup>. Hence, BC is often called relational cancer<sup>(8)</sup>.

However no research was found to clearly explain the physical and conceptual problems of Iranian husbands of women with BC and what was available was limited to quantitative research. If husbands' physical and mental problems are discovered, interventions can be taken to reduce their problems, and as a result, it promotes the

husbands' physical and mental health, which ultimately improves the quality of life of the patient and their families. The present study aims to explore the physiological dimension and self-concept amongst Iranian husbands of women with BC.

## Methods

In this directional content analysis examining the experiences of the Iranian husbands of women with mastectomy about physical and psychological disorder by

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method proposed by Elo and Kyngas<sup>(9)</sup>. The researchers analyzed the users' experiences by using in-depth interviews with participants.

Participants were selected by the purposive sampling method. This study was conducted on 23 patients with mastectomy and their husbands and therapists in Emam Hassan Mojtaba Chemotherapy center Dezfoul city and in Shahid Baghaei and Golestan healthcare centers Ahvaz city from 2020–2021.

Inclusion criteria for patients, their husbands and their family: (1) familiarity with Persian language of the participant; (2) appropriate physical and mental status of the participant; (3) At least one year has passed since the patient's marriage and (4) passage of six months from cancer diagnosis, mastectomy and chemotherapy. Inclusion criteria for Therapist: (1) two years of experience with patients with mastectomy, (2) having at least a bachelor's degree.

Due to the COVID-19 pandemic, the interview was conducted through a mobile phone video call at a convenient time for the participants. The sample selection was stopped when data saturation was reached. After introduction of the interviewer and expression of the objectives, the patients' husbands were asked semi-structured questions. It should be noted that the interviews were recorded after gaining the participants' consent. The interviews were begun with questions about adaptation according to Roy's theory and in two dimensions, physical and self-concept and were continued with more specific questions based on the primary interviews and the main themes. The ethical requirements of Helsinki were observed in this research.

## Results

The mean age of participants was 50/5 years. One of them was single, 19 cases were married, and one was divorced. In the present study, most of the participants were between 35 and 45 years old and female with university education. Most of the participants were husbands with two children. Most of the participants have been married over 20 years and affected for more than ten years. Total mastectomy was the most common surgery performed for the patients. The demographic features of the subjects are provided in Table 1. The two main categories extracted include: physical disorders and self-concept Table 1.

### Physical disorders

#### Rest and activity

The analysis revealed "sleep", "physical strength", and "mobility". The subcategory of sleep included codes of "insomnia", "frequent awakenings", and "nightmares". "In the first days, I had nightmares, and even if I did not

have nightmares, I always woke up" (P5). The subcategory of physical strength included codes of "fatigue" and "weakness". "Sometimes I would faint as I walked around hospitals and offices" (P 13).

The subcategory of mobility included codes of "reducing exercise" and "physical activity". "I went to the park less early and exercised because I was busy with my wife" (P 5).

#### Absorption and excretion

The analysis revealed "impaired absorption", "change in diet", and "excretion". The subcategory of absorption disorders included "weight loss", "anorexia", and "vomiting". The subcategory of change in diet included "reducing the consumption of high-fat foods" and "increasing the consumption of boiled foods". The subcategory of included of "excretion diarrhea" and "constipation

#### Blood circulation

The analysis revealed "blood pressure" and "heart". The subcategory of blood pressure included the codes of "hypotension" and "hypertension". "In the first chemotherapy session I went to, my wife vomited and my son-in-law took her to see a physician who saw that her blood pressure was high" (P4).

The subcategory of heart included "tachycardia" and "unstable angina". "When I heard the news of cancer of my wife, my heart beat faster" (P 8).

#### Neurology

The analysis revealed "physical pain" and "psychosomatic pain". The subcategory of physical pain included codes of "migraine headache" and "stomach pain". "I had a headache early because I thought a lot" (P 13).

Psychosomatic pain included codes of "hand pain" and "chest pain". "My husband used to tell me that since I heard you have cancer, my left hand hurts and I get nervous".

### Self-concept

#### Physical self

The analysis revealed "physically fatigue with hidden anxiety" and the "experience of physical weakness". The subcategory of physically fatigue with hidden anxiety included codes of "fatigue from repeated chemotherapy sessions" and "experiencing anxious motor habits". I bit my nails when I was stressed. "The first few days I realized I started bit my nails habitually" (P22).

The generic category of experiencing physical weakness included "prolonged starvation" and "feelings of loss of energy". "When I went for my wife for treatment, my work

Type of Participant	Type of Mastectomy	Duration of BC(year)	number of children	Duration of Marriage(year)	Job	Education	Age	Code
Patient	Partial	7	2	30	Retired	Associate degree	60	P1
Mother 's patient	Unilateral mastectomy	1	0	2	Employee	Bachelor's degree	35	P2
Patient	Unilateral mastectomy	6	2	31	Retired	Bachelor's degree	56	P3
Patient	Unilateral mastectomy	2	2	27	worker	High school	49	P4
Husband	Unilateral mastectomy	2	3	25	Employee	Associate degree	51	P5
Therapist	-----	-----	-----	-----	Employee	Ph.D	-----	P6
Therapist	-----	-----	-----	-----	Employee	Ph.D	-----	P7
Husband	Unilateral mastectomy	6	2	14	Self–employed	Associate degree	40	P8
Patient	Bilateral mastectomy	3	1	9	worker	Diploma	36	P9
Therapist	-----	-----	-----	-----	Employee	Bachelor's degree	-----	P10
Husband	Partial	13	2	30	Employee	Masters' degree	50	P11
Patient	Bilateral mastectomy	5	2	24	Employee	Diploma	49	P12
Husband	Unilateral mastectomy	2	2	27	worker	High school	49	P13
Husband	Unilateral mastectomy	13	1	33	Retired	High school	65	P14
Patient	Bilateral mastectomy	10	5	33	Self–employed	High school	56	P15
Husband	Partial	4	1	40	worker	Diploma	61	P16
Husband	Unilateral mastectomy	7	2	28	Self–employed	Diploma	60	P17
Patient	Unilateral mastectomy	1	0	2	Employee	Bachelor's degree	36	P18
Husband	Unilateral mastectomy	3	2	20	Employee	High school	40	P19
Therapist	-----	-----	-----	-----	Employee	Ph.D	-----	P20
Husband	Unilateral mastectomy	7	2	28	Self–employed	Diploma	58	P21
Husband	Partial	11	2	33	Employee	Associate degree	54	P22
Patient	Partial	4	2	27	Self–employed	Diploma	54	P23

**Table 1.** Demographic Characteristic of the husbands of Iranian women with mastectomy

Main category	Generic category	Subcategory	Code(frequency)
Physical	Activity and rest	Sleep	Insomnia(1), waking up frequently(1), having nightmares(1)
		Physical power	
		Activity	Fatigue, (1) weakness(1)
	Absorption and excretion	Absorption disorder	Weight loss(1), loss of appetite, vomiting(1)
		Eating style	Decreased consumption of high-fat food(19), increased consumption of boiled food(16)
		Defecation	Diarrhea(1), constipation(1)
	Blood circulation	Blood pressure	Hypotension(1), hypertension(1)
		Heart	Tachycardia(1), Unstable angina(1)
	Neurological	Physical pains	Migraine headaches(1), stomachache(1)
		Psychosomatic painss	Hand pain(1), chest pain(1)
Physical self-concept	Fatigued body with hidden anxiety	Being tired by frequent chemotherapy sessions(2), experiencing nervous motor habits(2)	
	Experiencing physical weakness	Long-term hunger(1), loss of energy(2)	
	Violence against the patient	Tension between the couple(3), rejection of the patient by one's husbands(1)	
	Non-sympathetic behaviors towards the patient	Taunting the patient(2), expressing happiness because of the disease(1)	
Interpersonal self-concept	patient		
	Avoidance	Leaving the patient(1), avoiding exposure to the news(3), unwillingness to see the disease effects on the patient's body(6)	
	Modification of family relationships	Husbands's decreased relationship with one's family due to patient care(1), increased relationship with husbands's family(2)	
Mental self-concept	Personal stability disorder	Feeling shocked(20), problems in decision-making(18)	
	Reduction of self-esteem	Lack of self-esteem(1), self-underestimation(1)	
	Anxiety	Being worried about the future and disease outcomes(12), being worried about ambiguities in treatments(8)	
	Attitude towards the disease	Considering treatment as a fight(4), considering cancer equal to death(2), positive attitude towards the disease(3), having a simplistic view towards the disease(2)	
	Husbands's unhappiness	Sadness about treatment complications(16), sadness about not satisfying one's wife(5)	
	Fear	Fear from social instability during treatment(3), fear from the name of cancer(6), fear from the disease and its complications(17), fear from the unknown (8)	
	Maintenance of personal stability	Indifference to cancer diagnosis(2), introversion(2), avoiding rumination(1)	
	Acceptance of the issue	Accepting the disease and its complications(11), surrender to fate(10)	
	Wrong beliefs	Bargaining with God(1), blaming oneself for the disease(1), blaming Wi-Fi waves for the disease(3)	
Ideal self-concept	Being regretful for the lost health	Being regretful for the past(4), being sorry for not having valued health(2)	
	Demanding love and health	Being hopeful for becoming healthy in future(6), having the desire for a happy life(7)	
Spiritual self-concept	Spiritual care	Empowerment of the spiritual dimension through appealing to God and the holy prophets(16), receiving support from self-possessed people(3)	
	Husbands's ethical-social commitment	Feeling responsible towards one's wife(15), valuing the wife's health(14), emotional stability towards one's wife(15)	

**Table 2.** Main categories, generic categories, subcategories, and participants' codes

in the hospital was time consuming and I was very hungry, but I could bear to go home” (P 22).

### Interpersonal self

The analysis revealed “violence against the patient”, non–empathetic behavior with the patient”, “avoidance”, and “adjustment of communication with the family”. The generic category of violence against the patient included codes of “tension between the couple” and “the patient’s rejection by the husband “. “When my husband heard that I had cancer, he said, I do not want a sick woman and pushed me” (P 18).

The generic category of non–empathetic behavior with the patient included codes of “taunting the patient” and “expressing happiness about the patient’s disease”. “My husband always says it was true that it was good that you got cancer like this” (P 12). The generic category of avoidance included “leaving the husbands”, “avoiding exposure to the news of the disease”, and “not wanting to see the effects of the disease on the patient’s body”. “After receiving the biopsy result, my husband hired a lawyer to divorce him, so that the first session of chemotherapy resulted in a divorce” (P 18).

The generic category of adjustment of communication with the family included codes of “reduced communication with one’s family to care for the patient” and “increase the communication with the husband’s family”. “I increased the communication with my wife’s family to stay with the children” (P13).

The generic category of mental self–included the subcategories of “impaired personal stability”, “reduced self–esteem”, “anxiety, attitudes toward disease”, “husbands suffering”, “fear”, “maintaining personal stability”, “acceptance of the problem”, and “belief in misconceptions”.

### Mental self

The analysis revealed impaired personal stability included codes of “shock when hearing the news of disease” and “impaired decision making”. “I was shocked to hear that my wife had cancer and did not know what to do” (P 19).

The analysis revealed reduced self–esteem that included codes of “self–destruction” and “self–inferiority”. “I am ashamed of my wife because I could not provide the life she deserved” (P 14).

The generic category of anxiety included “worrying about the future of the disease” and “its consequences for the patient and family”, “as well as worrying about the ambiguity of the pain of treatment”. “My husband and I were very worried because the consequences of the

disease were vague and unknown to us” (P 3).

The generic category of attitudes toward disease included “considering treatment as fighting”, “equating cancer with death”, “a positive view of disease”, and “a simplistic view of cancer”. “When it comes to cancer I see death” (P13).

The generic category of the husband’s grief included “grief over treatment complications” and “the woman’s dissatisfaction”. “My wife cannot satisfy me because of drugs” (P 12).

The generic category of fear included “fear of social instability during treatment”, “cancer, disease” and “its complications”, and “the unknown”. “Because my wife’s treatment coincided with the peak of the sanctions, and the fear of getting medicine doubled our fear that we would not be able to get drugs during the next periods of treatment because of the sanctions” (P 5).

The generic category of personal stability included codes of “indifference to receiving news of cancer”, “introversion”, and “avoiding the ruminant of grief”. “My husband showed no upset” (P 9).

The generic category of accepting the problem included the codes of “acceptance of the disease and its complications”, and “submission to fate”. “I knew that my wife had finally died and I accepted it” (P 8).

The generic category of believing in misconceptions included “bargaining with God”, “blaming oneself for causing the disease”, “blaming the Internet waves for a woman’s cancer”. “Earlier, when I heard that my wife had cancer, I was very upset and said why I should get this problem among all my family members” (P 5).

### Ideal self

The analysis revealed “regretting lost health” and “seeking love with a world of health”. The generic category of regret for the lost health included “regret for the past days” and “regret for the lack of value for the lost health”. “I always tell myself what good days we had and we did not value our health” (P8).

The generic category of love with a world of health included the codes of “wishing for health” and “to live happily”. “I wish those good days come back and health and love come into our life again” (P 8).

### Spiritual–moral self

The analysis revealed “the subcategories of spiritual care” and “the moral–social commitment of the husbands”. The sub–category of spiritual care included “strengthening the spiritual dimension by appealing to God” and “the Imams and receiving the support of self–sufficient ones”.

"In order for my wife to recover, I even took her to the shrine of Imam Reza" (P 8).

The subcategory of the husband's social moral commitment included codes of "family responsibility", "value for health", "and emotional stability toward the woman". "I will stay as long as she lives" (P 14).

Physical disorders were less common among husbands than self-concept disorders, so that most of the disorders recurred only once in the husbands and the highest frequency was related to Eating style changes that all husbands applied. But after realizing the Feeling shocked and problems in decision-making, it was the most common that all participants reported. Frequency of other codes is entered in. Table 2

## Discussion

In the present study, the husbands of breast cancer patients suffer from many physical problems, especially in their sleep and rest and at the time of cancer diagnosis. In the same line, Perndorfer reported decreased sleep duration and sleep quality as the main problems among husbands, which were mostly associated with fear from the disease recurrence<sup>(10)</sup>. Other studies have also disclosed that fear from the disease recurrence always existed among patients and their husbands<sup>(11)</sup>. In addition, the husbands complained of fatigue, weakness and decreased physical activity, they lost weight and experienced vomiting. Other physical problems included hypotension, hypertension, tachycardia, physical and psychosomatic headaches, diarrhea, and constipation.

The mental state of husbands varied, but mostly complained of fatigue and weakness due to the long period of treatment. In other studies, rumination fatigue has been reported among husbands<sup>(12)</sup>. In the present study, the husbands were shocked and had decision-making problems during the first days. Other studies have also disclosed shock and fear from metastasis among husbands<sup>(13)</sup>. Moreover, some husbands blamed themselves for their husbands' disease, which could have a negative impact on their quality of life<sup>(14)</sup>.

In the current study, the husbands were mostly worried about the future of the disease and its complications as well as ambiguities in treatment. Other studies also indicated that husbands' worries about patients' health were at the top priority<sup>(15)</sup>. Women's infertility was also among husbands' concerns<sup>(16)</sup>.

The present study showed that in couples who had many arguments before the disease, the husbands left their husbands or behaved violently. Some studies reported that some women are more affected by cancer than their husbands<sup>(17)</sup>. Furthermore, in the present study,

unsympathetic behaviors such as mocking the patient and expressing happiness were also observed.

The results of the study showed four views on this disease: simplistic view of cancer, fighting the disease, being blessed with the disease, cancer being equal to death, all of which are rooted in people's culture and beliefs<sup>(18)</sup>. Also, in this study, the husbands experienced fear from the instability of social status during treatment, the name of cancer, the disease and its complications, and the unknown. In other studies, husband's' fears were mainly attributed to disease recurrence<sup>(19)</sup>, loss of women's attractiveness<sup>(20)</sup>, and women's death<sup>(21)</sup>. Furthermore, Egstad referred to husbands' low level of knowledge about BC<sup>(22)</sup>. In this research, husbands tried to maintain their personal stability, which was manifested by ignoring the news, introversion and avoiding rumination, which can predict anxiety in them<sup>(23)</sup>.

The present study revealed that acceptance of the disease and its complications by husbands and surrender to fate is associated with the acceptance of the treatment process, which can promote adaptation<sup>(24)</sup>. In the current research, some husbands felt guilty because of their husbands' disease and some others blamed Wi-Fi waves. Other studies also showed that some husbands blamed themselves for their husbands' disease<sup>(25)</sup>. Furthermore, the husbands felt regretful and hoped that their husbands would become healthy again. Feeling regretful represents low adaptation<sup>(26)</sup>. In this research, spiritual care was in the form of appeal to God and self-control people, which could improve adaptation in the course of pain and suffering<sup>(27)</sup>.

Husbands expressed a sense of responsibility towards their wife's, valuing their husbands and emotional stability towards their wife's, which greatly helped the patient's adaptation<sup>(28)</sup> and promoted patients' hopefulness for survival<sup>(29)</sup>. One of the limitations of this study is the difficulty in establishing trust in the husbands of women with BC. To solve this problem, it should be noted that the therapists have established trust between the researchers and their spouses.

## Conclusion

The findings of the research indicate that the spouses had physical disorders, which shows the necessity of paying attention to them as caregivers of the patient. Considering the self-concept, the husbands showed both adaptive and non-adaptive responses that were effective in accepting the treatment of the disease and solving the problem. From the results of this study, we can take steps to improve the physical and mental problems of the husbands of mastectomy patients.

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### Author's Contribution:

Study concept and design: MBBSH ,NE and MA;coding and categorization:MBBSH ,NE,MA,KZ and AZ;drafting of the manuscript:MBBSH;; critical revision of the manuscript for important intellectual content:MBNSH and Az.

### Ethical Approval:

The proposal of the study was reviewed and approved by the Ethics Committee of Ahvaz Jundishapour University of Medical Sciences (ethics code: IR.AJUMS.REC.1399.099).

### Ethical Statement:

This article was extracted from the PhD dissertation written by Marzieh Beigom Bigdeli Shamloo and approved by the Research Vice–chancellor of Ahvaz Jundishapour University of Medical Sciences on Aprilc25, 2020.(ethics code: IR.AJUMS.REC.1399.099).

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